

## **DETAILED ACTION**

### ***Status of Claims***

1. Claim 1 is currently under examination, wherein claim 1 has been amended in applicant's amendments filed on February 4, 2008. Applicant's affirmation of the election of Invention I, claim 1, without traverse in the reply filed on February 4, 2008 has been acknowledged. The non-elected Invention II, claim 2, has also been amended in the same reply.

### ***Status of Previous Rejections***

2. The previous rejection of claim 1 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 62-278258 A as stated in the Office action dated September 4, 2007 has been maintained.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP ('258 A) as stated in the Office action dated September 4, 2007.

With respect to the amended features of claim 1, the high manganese steel of JP ('258 A) as claimed falls into the category of austenitic stainless steel of 200 series with a manganese content ranging by weight from 5.5% to 15.5% (AISI steel grades), which overlaps the claimed manganese content range. A prima facie case of obviousness exists. See MPEP 2144.05 I.

#### ***Response to Arguments***

4. The applicant's arguments filed on February 4, 2008 have been fully considered but they are not persuasive.

First, the applicant argues that the steel of JP ('258 A) is not an austenitic stainless steel as claimed and the manganese content range of the steel of JP ('258 A) does not overlap the claimed content range. In response, see the reasons of the rejections of the claim features in the paragraph 3 above.

Second, the applicant argues that the claimed value of 1000 HV at a depth of 50 microns is nowhere to be found in JP ('258 A). In response, the examiner notes that the claimed depth of a hardened layer having 1000 HV or more from the surface of the austenitic stainless steel is 10 microns or more. JP ('258 A) obviously meets the limitation.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

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/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

WZ

4/2/2008